DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
T (786) 315-2590 F (786) 315-2599
www.miamidade.gov/economy

NOTICE OF ACCEPTANCE (NOA)

Mule-Hide Products Co., Inc.
1195 Prince Hall Dr.
Beloit, WI 53511

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.
This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Mule-Hide Self-Adhered Roof System over Lightweight Concrete Decks

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA renews NOA# 12-0815.11 and consists of pages 1 through 15.
The submitted documentation was reviewed by Alex Tigera.

ROOFING ASSEMBLY APPROVAL

Category:	Roofing
Sub-Category:	Modified Bitumen
Materials	SBS/APP
Deck Type:	Lightweight Insulating Concrete
Maximum Design Pressure	-240 psf

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
Nail Base	65' 2" x 3' 3-3/8"	ASTM D 6163, Type I	SBS modified asphalt coated fiberglass reinforced base sheet.
Nail Base P	5' 2" x 3' 3-3/8"	ASTM D 6164, Type I	SBS modified asphalt coated polyester reinforced base sheet.
SA Base Sheet (FR) (1.5-mm)	32' 6" x 3' 3-3/8"	ASTM D 6163, Type I	Self-adhered, fiberglass reinforced, SBS modified bitumen membrane with a self-adhering back face and a smooth top surface.
SA Base Sheet 6163 (FR)	32' 6" x 3' 3-3/8"	ASTM D 6163, Type I	Self-adhered, fiberglass reinforced, SBS modified bitumen membrane with a self-adhering back face and a smooth top surface.
SA Base Sheet (1.5-mm)	32' 6" x 3' 3-$^{3}/_{8}$"	ASTM D 6163, Type I	Self-adhered, fiberglass reinforced, SBS modified bitumen membrane with a self-adhering back face and a smooth top surface.
SA Base Sheet 6163	32' 6" x 3' 3-$^{3}/_{8}$"	ASTM D 6163, Type I	Self-adhered, fiberglass reinforced, SBS modified bitumen membrane with a self-adhering back face and a smooth top surface.
SA-SBS Cap Sheet (FR)	32' 6" x 3' 3-3/8"	ASTM D 6164, Type I	Self-adhered, polyester reinforced, SBS modified bitumen membrane with a self-adhering back face and a granule top surface.
SA-SBS Cap Sheet	32' 6" x 3' 3-3/8"	ASTM D 6164, Type I	Self-adhered, fiberglass reinforced, SBS modified bitumen membrane with a self-adhering back face and a granule top surface.
SA-APP Cap Sheet	32' 6" x 3' 3-$^{3}/_{8}$"	ASTM D 6222, Type I	Self-adhered, polyester reinforced, APP modified bitumen membrane with a self-adhering back face and a granule top surface.
SA-APP Cap Sheet (FR)	32' 6" x 3' 3-$^{3}/_{8}$"	ASTM D 6222, Type I	Self-adhered, polyester reinforced, APP modified bitumen membrane with a self-adhering back face and a granule top surface.
SA-SBS KoolCap®	32' 6" x 3' 3-$^{3}/_{8}$"	ASTM D 6164, Type I	Self-adhered, fiberglass reinforced, SBS modified bitumen membrane with a self-adhering back face and a granule top surface.

SA-SBS KoolCap® (FR)	32’ 6” x 3’ 3-$^{3}/_{8}$”	ASTM D 6164, Type I	Self-adhered, fiberglass reinforced, SBS modified bitumen membrane with a self-adhering back face and a granule top surface.
SA-APP KoolCap®	32’ 6” x 3’ 3-$^{3}/_{8}$”	ASTM D 6222, Type I	Self-adhered, polyester reinforced, APP modified bitumen membrane with a self-adhering back face and a granule top surface.
SA-APP KoolCap® (FR)	32’ 6” x 3’ 3-$^{3}/_{8}$”	ASTM D 6222, Type I	Self-adhered, polyester reinforced, APP modified bitumen membrane with a self-adhering back face and a granule top surface
SA-APP PF30 KoolCap®	32’ 10” x 3’ 3-$^{3}/_{8}$”	ASTM D6222 Type I	Self-adhered, polyester reinforced, APP modified bitumen membrane with a self-adhering back face and a white film laminate on the top surface.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
Mule-Hide Poly ISO 2	Polyisocyanurate foam insulation	Mule-Hide Products Co., Inc.
Mule-Hide Poly ISO 1	Polyisocyanurate foam insulation	Mule-Hide Products Co., Inc.
ACFoam II	Polyisocyanurate foam insulation	Atlas Roofing Corporation
ACFoam III	Polyisocyanurate foam insulation	Atlas Roofing Corporation
Perlite Insulation	Perlite insulation board	Generic
DensDeck	Gypsum insulation board	Georgia-Pacific Gypsum Corporation
H-Shield	Polyisocyanurate foam insulation	Hunter Panels, LLC
H-Shield CG	Polyisocyanurate/perlite composite insulation	Hunter Panels, LLC
Tapered H-Shield	Polyisocyanurate foam insulation	Hunter Panels, LLC
Multi-Max FA-3	Polyisocyanurate foam insulation	Hunter Panels, LLC

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	CR Base Sheet Fastener (1.7")	G-90 galvanized base sheet fastener & plate	1.125" x 1.75"	OMG, Inc.
2.	Twin Loc-Nails	Pre-assembled Galvalume Base Sheet Fastener and stress plate.	Various	ES Products, Inc.
3.	FM-90	Pre-assembled Galvalume Base Sheet Fastener and stress plate	Various	ES Products, Inc.
4.	Maxload Fastener	Insulation fastener for wood, steel, and concrete decks.	Various	OMG, Inc.
5.	Flat Bottom Metal Plate	Galvalume AZ50 stress plate	3" square	OMG, Inc.
6.	OlyBond 500	Insulation Adhesive	Various	OMG, Inc.
7.	TITESET Roofing Adhesive	Insulation Adhesive	Various	3M Company
8.	3M Polyurethane Foam Insulation	Insulation Adhesive	Various	3M Company

APPROVED SURFACING:

TABLE 4

Product Name	Product Description	Application Rate	Specification	Manufacturer
Gravel	To be installed in a flood coat of approved asphalt at 60 lbs/sq	400 lbs/sq	N/A	Generic
Slag	To be installed in a flood coat of approved asphalt at 60 lbs/sq	300 lbs/sq	N/A	Generic

EVIDENCE SUBMITTED:

Test Agency	Test Name/Report	Report No.	Date
Factory Mutual Research Corporation	4470	J.I. 2W7A7.AM	08.04.94
	4450	2D5A9.AM	06.22.99
	4470	J.I. 3001334	02.15.00
	4470	J.I. 3000857	01.12.00
	4470	J.I. 3004091	01.12.00
	4470	3012321	07.29.07
	4450	3014751	08.27.03
	4450	3019317	06.30.04
	4470	3014692	08.05.03
Trinity | ERD	TAS 114	11752.09.99-1	02.08.00
	TAS 114	02764.09.05	09.09.05
	TAS 114	020843.02.05-1	02.10.05
	TAS 114	02762.03.05	03.30.05
	TAS 117(B)-ASTM D903	020841.06.04	06.02.04
	TAS 114	P1734.07.06-R1	02.27.07
	TAS 114	02843.07.07	07.23.07
	TAS 114	P1738.02.07	02.05.07
	TAS 114	P1739.01.07	01.23.07
	TAS 117(B)-ASTM D6862	C8500SC.11.07	11.30.07
	ASTM D6164 / ASTM D6222	P10490.08.08	08.13.08
	ASTM D6164 / ASTM D6222	P10490.10.08-R1	10.03.08
	ASTM D6222	P7400.03.08-R2	10/09/08
	TAS 114(D) – ASTM D1876	P10070.10.08	10/09/08
	ASTM D6222	P10490.10.08-2	10/30/08
	FM 4470 & TAS 114	P33970.03.11	03/15/11
	ASTM D6163 / ASTM D 4601	P33960.03.11	03/15/11
	ASTM D6164	P37590.07.13-1	07/02/13
	ASTM D6164	P37590.03.13-3A	03/06/13
	ASTM D6163	P37590.03.13-2-R1	02/05/13
	ASTM D6222	P37590.09.13	09/12/13
PRI Asphalt Technologies	ASTM D6222	PUSA-061-02-02	01/28/08
	ASTM D6222	PUSA-062-02-02	12/04/08
	ASTM D6163	PUSA-064-02-02	02/27/08

APPROVED ASSEMBLIES:

Membrane Type: SBS/APP

Deck Type 4I: Lightweight Concrete, Insulated

Deck Description: Approved Cellular Lightweight Concrete

System Type A(1): Anchor sheet mechanically fastened; one or more layers of insulation fully adhered with approved asphalt.

All General and System limitations apply.

Anchor Sheet: One ply of approved ASTM D4601 base sheet fastened to the deck as described below:

Fastening: Attach anchor sheet using OMG CR Base Sheet Fastener (1.7) spaced 7" o.c. in a 4" lap and 7" o.c. in two equally spaced staggered rows in the center of the sheet.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Mule-Hide Poly ISO 2, ACFoam II, Multi-Max FA-3, Mule-Hide Poly ISO 1, Tapered Mule-Hide Poly ISO 1, H-Shield, Tapered H-Shield		
Minimum 1.5" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the anchor sheet in full moppings of approved hot asphalt within the EVT range and at a rate of 20-40 lbs. Please refer to RAS 117 for insulation attachment. Insulations listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate face down.

Base Sheet: One or more plies of SA Base Sheet, SA Base Sheet 6163, SA Base Sheet (FR), or SA Base Sheet 6163 (FR) self-adhered.

Membrane: One ply of SA-SBS KoolCap®, SA-SBS KoolCap® (FR), SA-APP KoolCap®, SA-APP KoolCap® (FR), SA-SBS Cap Sheet, SA-SBS Cap Sheet (FR), SA-APP Cap Sheet, SA-APP PF30 KoolCap® or SA-APP Cap Sheet (FR) self adhered.

Surfacing: (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired coating or required fire classification.

Maximum Design Pressure: -45 psf; (See general limitation #7.)

Membrane Type: SBS/APP

Deck Type 4I: Lightweight Concrete, Insulated

Deck Description: Range II Elastizell LWIC over structural concrete; minimum 200psi

System Type A(2): All layers of insulation adhered to LWIC deck. Membrane is subsequently adhered to insulation.

All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ENRGY -3, ACFoam II, Mule-Hide Poly ISO 2, H-Shield, Mule-Hide Poly ISO 1 Minimum 1.5" thick	**N/A**	**N/A**
Tapered H-Shield	**N/A**	**N/A**

Note: Apply insulation in Olybond 500 Adhesive in continuous ¾" to 1" beads/ribbons spaced 12" o.c. Additional layers of insulation to be adhered with Olybond 500 Adhesive in continuous ¾" to 1" beads/ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Ply Sheet: One or more plies of SA Base Sheet, SA Base Sheet 6163, SA Base Sheet (FR), or SA Base Sheet 6163 (FR) self-adhered.

Membrane: One ply of SA-SBS KoolCap®, SA-SBS KoolCap® (FR), SA-APP KoolCap®, SA-APP KoolCap® (FR), SA-SBS Cap Sheet, SA-SBS Cap Sheet (FR), SA-APP Cap Sheet, SA-APP PF30 KoolCap® or SA-APP Cap Sheet (FR) self adhered.

Surfacing: (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired coating or required fire classification.

Maximum Design Pressure: -90.0 psf (See General Limitation #9)

Membrane Type:	SBS/APP
Deck Type 4I:	Lightweight Concrete, Insulated
Deck Description:	Elastizell LWIC over structural concrete; minimum 200psi
System Type A(3):	All layers of insulation adhered to LWIC deck. Membrane is subsequently adhered to insulation.

All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Mule-Hide Poly ISO 2, ACFoam II, ACFoam III, ENRGY -3, Mule-Hide Poly ISO 1, H-Shield, H-Shield CG, Multi-Max FA-3		
Minimum 1.5" thick	**N/A**	**N/A**

Note: Apply insulation in TITESET Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 in continuous 3" to 3-1/2" beads/ribbons spaced 12" o.c. Additional layers of insulation to be adhered with TITESET Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 in continuous 3" to 3-1/2" beads/ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Ply Sheet:	One or more plies of SA Base Sheet, SA Base Sheet 6163, SA Base Sheet (FR), or SA Base Sheet 6163 (FR) self-adhered.
Membrane:	One ply of SA-SBS KoolCap®, SA-SBS KoolCap® (FR), SA-APP KoolCap®, SA-APP KoolCap® (FR), SA-SBS Cap Sheet, SA-SBS Cap Sheet (FR), SA-APP Cap Sheet, SA-APP PF30 KoolCap® or SA-APP Cap Sheet (FR) self adhered.
Surfacing:	(Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired coating or required fire classification.
Maximum Design Pressure:	-180.0 psf (See General Limitation #9)

Membrane Type: SBS/APP

Deck Type 4I: Lightweight Concrete, Insulated

Deck Description: Celcore LWIC over structural concrete; minimum 200psi

System Type A(4): All layers of insulation adhered to LWIC deck. Membrane is subsequently adhered to insulation.

All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Mule-Hide Poly ISO 2, ACFoam II, ACFoam III, ENRGY -3, Mule-Hide Poly ISO 1, H-Shield, H-Shield CG, Multi-Max FA-3		
Minimum 1.5" thick	**N/A**	**N/A**

Note: Apply insulation in TITESET Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 in continuous 3" to 3-1/2" beads/ribbons spaced 12" o.c. Additional layers of insulation to be adhered with TITESET Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 in continuous 3" to 3-1/2" beads/ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Ply Sheet: One or more plies of SA Base Sheet, SA Base Sheet 6163, SA Base Sheet (FR), or SA Base Sheet 6163 (FR) self-adhered.

Membrane: One ply of SA-SBS KoolCap®, SA-SBS KoolCap® (FR), SA-APP KoolCap®, SA-APP KoolCap® (FR), SA-SBS Cap Sheet, SA-SBS Cap Sheet (FR), SA-APP Cap Sheet, SA-APP PF30 KoolCap® or SA-APP Cap Sheet (FR) self adhered.

Surfacing: (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired coating or required fire classification.

Maximum Design Pressure: -222.5 psf (See General Limitation #9)

Membrane Type: SBS/APP

Deck Type 4I: Lightweight Concrete, Insulated

Deck Description: Elastizell LWIC over structural concrete; minimum 200psi

System Type A(5): All layers of insulation adhered to LWIC. Membrane is subsequently adhered to insulation.

All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Mule-Hide Poly ISO 2, ACFoam II, H-Shield, Mule-Hide Poly ISO 1 Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
DensDeck, DensDeck Prime Minimum ¼" thick	**N/A**	**N/A**

Note: Apply insulation in Olybond 500 Adhesive in continuous ¾" to 1" beads/ribbons spaced 12" o.c. Additional layers of insulation to be adhered with Olybond 500 Adhesive in continuous ¾" to 1" beads/ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Ply Sheet: One or more plies of SA Base Sheet, SA Base Sheet 6163, SA Base Sheet (FR), or SA Base Sheet 6163 (FR) self-adhered.

Membrane: One ply of SA-SBS KoolCap®, SA-SBS KoolCap® (FR), SA-APP KoolCap®, SA-APP KoolCap® (FR), SA-SBS Cap Sheet, SA-SBS Cap Sheet (FR), SA-APP Cap Sheet, SA-APP PF30 KoolCap® or SA-APP Cap Sheet (FR) self adhered.

Surfacing: (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired coating or required fire classification.

Maximum Design Pressure: -225.0 psf (See General Limitation #9)

Membrane Type: SBS/APP

Deck Type 4I: Lightweight Concrete, Insulated

Deck Description: Mearlcrete LWIC over structural concrete; minimum 200psi

System Type A(6): All layers of insulation adhered to LWIC deck. Membrane is subsequently adhered to insulation.

All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Mule-Hide Poly ISO 2, ACFoam II, ACFoam III, ENRGY -3, Mule-Hide Poly ISO 1, H-Shield, H-Shield CG, Multi-Max FA-3		
Minimum 1.5" thick	**N/A**	**N/A**

Note: Apply insulation in TITESET Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 in continuous 3" to 3-1/2" beads/ribbons spaced 12" o.c. Additional layers of insulation to be adhered with TITESET Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 in continuous 3" to 3-1/2" beads/ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Ply Sheet: One or more plies of SA Base Sheet, SA Base Sheet 6163, SA Base Sheet (FR), or SA Base Sheet 6163 (FR) self-adhered.

Membrane: One ply of SA-SBS KoolCap®, SA-SBS KoolCap® (FR), SA-APP KoolCap®, SA-APP KoolCap® (FR), SA-SBS Cap Sheet, SA-SBS Cap Sheet (FR), SA-APP Cap Sheet, SA-APP PF30 KoolCap® or SA-APP Cap Sheet (FR) self adhered.

Surfacing: (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired coating or required fire classification.

Maximum Design Pressure: -240.0 psf (See General Limitation #9)

Membrane Type: SBS/APP

Deck Type 4: Lightweight Concrete, Non-insulated

Deck Description: Elastizell with Zell-Crete fibers; 350-400 psi Compressive strength. Supplemental attachment with OMG Maxload Fastener and 3" Flat Bottom Plates at 1 per $8ft^2$.

System Type E(1): Base sheet mechanically fastened.

All General and System limitations apply.

Base Sheet: Nail Base or Nail Base P fastened as outlined below:

Fastening: Twin-Loc nails at 6" o.c. in 4" lap and 6" o.c. in three equally spaced center rows.

Ply Sheet: SA Base Sheet, SA Base Sheet 6163, SA Base Sheet (FR) or SA Base Sheet 6163 (FR) self adhered.

Membrane: One ply of SA-SBS KoolCap®, SA-SBS KoolCap® (FR), SA-APP KoolCap®, SA-APP KoolCap® (FR), SA-APP Cap Sheet (FR), SA-APP Cap Sheet, SA-SBS Cap Sheet, SA-SBS Cap Sheet (FR), or SA-APP PF30 KoolCap® self-adhered.

Surfacing: (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired coating or required fire classification.

Maximum Design Pressure: -60 psf; (See general limitation #7.)

Membrane Type: SBS/APP

Deck Type 4: Lightweight Concrete, Non-insulated

Deck Description: Celcore MF Lightweight Concrete; 300psi compressive strength.

System Type E(2): Base sheet mechanically fastened.

All General and System limitations apply.

Base Sheet: Nail Base or Nail Base P fastened as outlined below:

Fastening: FM-90 fasteners at 8" o.c. in 4" lap and 8" o.c. in three equally spaced center rows.

Ply Sheet: One or more plies of SA Base Sheet, SA Base Sheet 6163, SA Base Sheet (FR), or SA Base Sheet 6163 (FR) self-adhered.

Membrane: One ply of SA-SBS KoolCap®, SA-SBS KoolCap® (FR), SA-APP KoolCap®, SA-APP KoolCap® (FR), SA-SBS Cap Sheet, SA-SBS Cap Sheet (FR), SA-APP Cap Sheet, SA-APP PF30 KoolCap® or SA-APP Cap Sheet (FR) self adhered.

Surfacing: (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired coating or required fire classification.

Maximum Design Pressure: -60 psf; (See general limitation #7.)

LIGHTWEIGHT INSULATING CONCRETE SYSTEM LIMITATIONS:

1. If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine equivalent or enhanced fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117, calculations shall be signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant.
2. For steel deck application where specific deck construction is not referenced: The deck shall be a minimum 22 gage attached with 5/8" puddle welds with weld washers at every flute with maximum deck spans of 5 ft. o.c.
3. For systems where specific lightweight insulating concrete is not referenced, the minimum design mix shall be a minimum of 300 psi.

GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance, refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq.
   Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 9N-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE